

# Current Water Conditions in Massachusetts

## July 2015 Summary



- July precipitation was variable; below normal in Eastern Massachusetts
- July streamflows were normal
- July groundwater levels were not available
- July reservoir levels were normal

### PRECIPITATION CONDITIONS

EEA and MEMA Drought Management Plan Region	July Estimated Rainfall: Composite Sites Reporting-inches	Departure from Normal-inches	EEA and MEMA Drought Management Plan Levels	
			Standardized Precipitation Index	Precipitation Index
Cape Cod & Islands	1.49	-1.39	Advisory	Watch
Central	3.00	-0.91	Normal	Normal
Connecticut River	5.23	1.21	Normal	Normal
Northeast	2.71	-0.77	Normal	Normal
Southeast	2.58	-0.83	Normal	Normal
Western	5.34	1.14	Normal	Normal

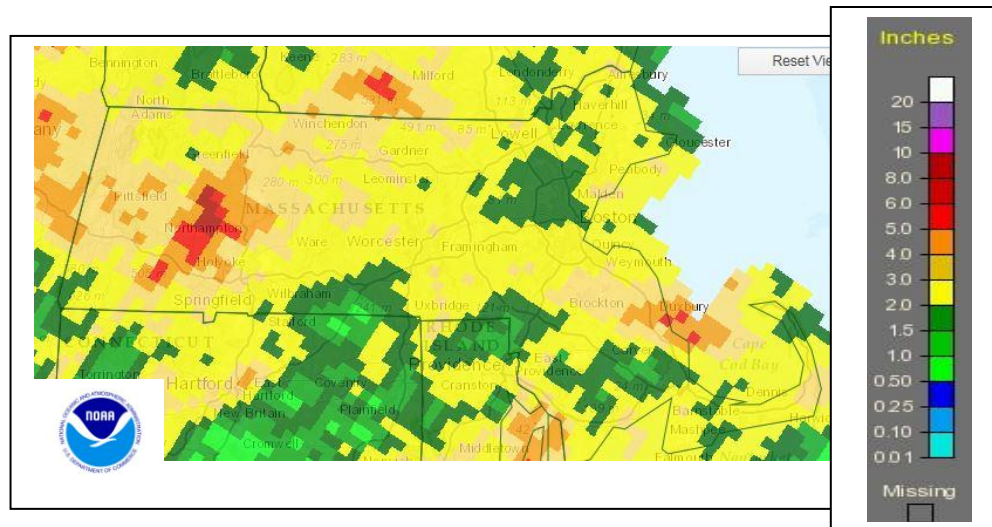
Key to Levels

Normal
Advisory
Watch
Warning
Emergency

### July 2015 Total Observed Rainfall from National Weather Service

found at <http://water.weather.gov/precip/>

estimated from radar data correlated to NWS rainfall gauge reports



### Weather Events of Note- Highlights from the NWS Taunton MA's E-5 Report by Nicole Belk

"July 2015 featured many days with isolated to scattered afternoon showers and thunderstorms. Interior southern New England, in particular the Pioneer Valley in Massachusetts, was the most frequent recipient of this precipitation. This area had the highest rainfall totals for the NWS Taunton's Hydrologic Service Area- 4 to 6 inches of rainfall, which was normal to 1.5 inches above normal."

".... on the 27<sup>th</sup> of the month, locally torrential downpours in Williamsburg, MA pushed gravel from local area driveways downhill onto Route 9, effectively closing this roadway. A slope failure occurred on a side road, and numerous washouts occurred on smaller roads in town."

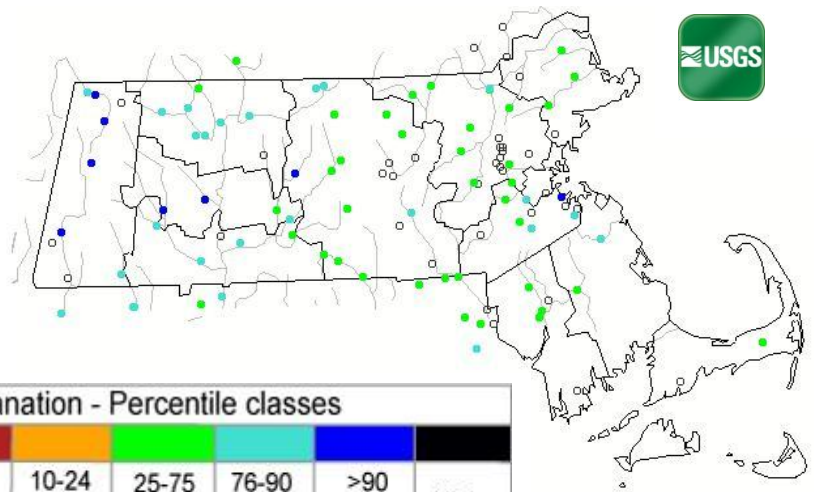
## STREAMFLOW CONDITIONS

General Streamflow Conditions in Massachusetts July 2015		
EEA and MEMA Drought Management Plan Region	July Streamflow Conditions	EEA and MEMA Drought Plan Level Streamflow Index
Cape Cod & Islands	ND	Normal
Central	Normal	Normal
Connecticut River	Normal	Normal
Northeast	Normal	Normal
Southeast	Normal	Normal
Western	Normal	Normal

**Note:** Streamflow conditions for individual streamflow-gaging stations may differ from general conditions. ND, no data

Average July 2015 streamflows that are monitored by the Commonwealth of Massachusetts and United States Geological Survey (USGS) cooperative stream gaging program. See map at right found at: <http://waterwatch.usgs.gov/new/index.php?m=mv01d&r=ma&w=map>

July 2015 Monthly Streamflow Compared to Historical July Streamflow



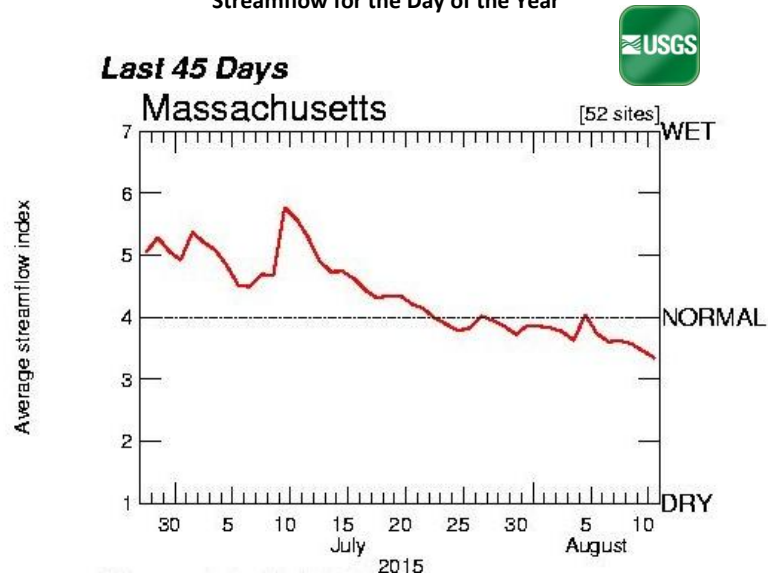
Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

The graph to the right depicts a composite daily streamflow relative to normal streamflow for Massachusetts for the 45-day period of June 28 to August 10, 2015. An updated summary plot may be navigated from: <http://waterwatch.usgs.gov/index.php>

### KEY:

- 1 = New record low for day
- 2 = < 10<sup>th</sup> percentile
- 3 = 10<sup>th</sup> – 24<sup>th</sup> percentile
- 4 = 25<sup>th</sup> – 74<sup>th</sup> percentile
- 5 = 75<sup>th</sup> – 89<sup>th</sup> percentile
- 6 = ≥ 90<sup>th</sup> percentile
- 7 = New record high for day

Time Series Plot of Real-Time Streamflow Compared to Historical Streamflow for the Day of the Year



## GROUNDWATER LEVELS

General Groundwater Conditions in Massachusetts at the end of July 2015		
EEA and MEMA Drought Management Plan Region	Groundwater Conditions	EEA and MEMA Drought Plan Level Groundwater Index
Cape Cod & Islands	ND	ND
Central	ND	ND
Connecticut River	ND	ND
Northeast	ND	ND
Southeast	ND	ND
Western	ND	ND

**Note:** Groundwater conditions for individual wells may differ from general conditions. ND, no data

The USGS Groundwater Conditions for the end of July 2015 can be viewed at the web site:

[http://ma.water.usgs.gov/water\\_statement/2015\\_07/index.html](http://ma.water.usgs.gov/water_statement/2015_07/index.html)

### Groundwater Conditions July 2015



Explanation - Percentile classes								<input type="radio"/> Real Time <input type="checkbox"/> Continuous <input type="checkbox"/> Periodic Measurements
New Low	<10	10-24	25-75	76-90	>90	New High	Not Ranked	
	Much Below Normal	Below Normal	Normal	Above Normal	Much Above Normal			

## RESERVOIR LEVELS

General Reservoir Levels in Massachusetts at the end of July 2015		
EEA and MEMA Drought Management Plan Region	Reservoir Level	EEA and MEMA Drought Plan Level Reservoir Index
Cape Cod & Islands	Normal	Normal
Central	Normal	Normal
Connecticut River	Normal	Normal
Northeast	Normal	Normal
Southeast	Normal	Normal
Western	Normal	Normal

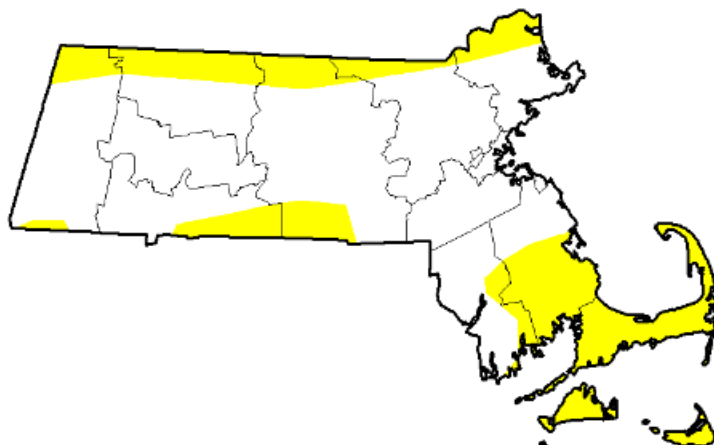
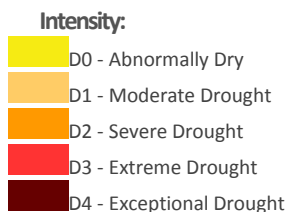
**Note:** Conditions at individual reservoir systems may differ from general conditions.

## NWS/NOAA DROUGHT OUTLOOK AND FORECAST

### U.S. Drought Monitor- Massachusetts August 11, 2015

Produced by the National Drought Mitigation Center (NDMC). Intensity based on NDMC criteria. For updated map see:

<http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?MA>

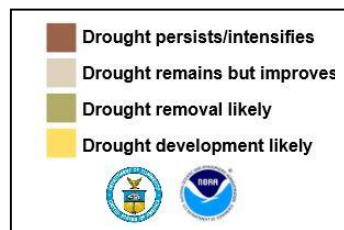


### Seasonal Drought Outlook

Released July 16, 2015 valid July 16- October 31, 2015

The July 16, 2015 NOAA Seasonal Drought Outlook indicates a tendency of no drought development (D1 or worse) likely through the October 31, 2015 period.

[http://www.cpc.ncep.noaa.gov/products/expert\\_assessment/seasonal\\_drought.pdf](http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.pdf)



**August 18, 2015** This report was prepared by the Massachusetts Department of Conservation and Recreation. Data were obtained from the sources described in the report and may be preliminary in nature. Additional information, previous and future water conditions reports can be found on our web site:

<http://www.mass.gov/eea/agencies/dcr/water-res-protection/water-data-tracking/precipitation-composite-current-conditions.html>